

SERIAL NO. 10/542,439

PATENT APPLICATION

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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Serial No.: 10/542,439

Group Art Unit: 4162

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Examiner: Colette B. Nguyen

For: Catalyst Complex for Catalysing Esterification and Trans-Esterification Reactions and Process for Esterification/Trans-Esterification Using the Same

Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

**DECLARATION UNDER 37 CFR §1.132**

I, Dr. Jamil A. Siddiqui, being competent and qualified to testify to the matter stated herein, declare the following:

1. I am a citizen of Pakistan and I reside in the Kingdom of Saudi Arabia, having a correspondence address of P.O. 42503, Riyadh 11551, Saudi Arabia.
2. I am an inventor of the above-identified U.S. Patent Application no. 10/542,439 filed February 13, 2006.
3. My educational background is as follows: I hold a Bachelor of Science degree in Textile Chemistry granted in 1984 from University of Engineering & Technology, LAHORE, Pakistan and a Doctor of Philosophy degree in Polymer Chemistry granted in 1989 from University of Sheffield, United Kingdom.

4. I am currently a research scientist for Saudi Basic Industries Corporation in their Research and Technology center in Riyadh, Kingdom of Saudi Arabia.

5. My duties at the Research and Technology center are to in research on PET/polyester related area.

6. I have worked in the field of catalysis and esterification and tran-esterification for seven (7) years. I am the author or co-author of approximately five (5) articles on the subject and presently have three (3) U.S. patents or patent applications in this field naming me as an inventor or co-inventor.

7. I have read and reviewed the Office Action mailed June 25, 2008, and the cited references, "Neue Katalysatorsysteme zur Herstellung von Polyethyleneterephthalat und deren Auswirkungen auf die Lichtechtheiten" ("Gutmann"), U.S. Patent no. 5,017,680, ("Sublett") and U.S. Patent no. 6,066,714 ("Putzig").

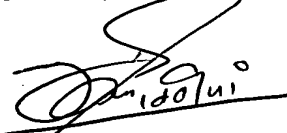
8. A comparative experiment was conducted to compare with Example 10 as presented in the table in the application as filed. Reaction conditions and compounds used are as in Example 2-Synthesis of poly(ethylene terephthalate) as filed. The same amount of catalyst as in Example 10 was used, now even divided over Ti-glycolate and Na-glycolate. Both were used in an amount of 15 ppm with regard to the amount of terephthalic acid. The results obtained are shown below.

Example	Catalyst ppm	L*	a*	b*	Time for polycondensation	M <sub>n</sub> (g/mol)
10	20 ppm Ti-glycolate 10 ppm Na-glycolate	85.3	-2.3	0.9	1h 34min	24,000
Comparative 10a	15 ppm Ti-glycolate 15 ppm Na-glycolate	83.1	-2.0	0.8	1h 30min	23,900

The results show that the most important  $L^*$  value increases when the Ti/Na ratio deviates in upward direction from the 1:1 ratio applied in D14. The other parameters remain the same within experimental accuracy.

9. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,



Dr. Jamil A. Siddiqui

Date: Sept. 15<sup>th</sup> 2008